



Louisville and Jefferson County Metropolitan Sewer District  
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[www.msdlouky.org](http://www.msdlouky.org)

December 5, 2006

Mr. Femi Akindele  
Remedial Project Manager  
Kentucky/Tennessee Section  
U.S. Environmental Protection Agency  
Region IV  
61 Forsyth Street  
Atlanta, GA 30303

**Re: Result of Air Quality Monitoring - FY 07, Fourth Quarter (FY07-1Q),  
Lees Lane Superfund Site, Jefferson County, Kentucky, Administrative Order on  
Consent, USEPA Docket No-91-32-C**

Dear Mr. Akindele:

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan For Post-Removal Site Control at the Lee's Lane Landfill Site. Section 4.2, Air Quality Monitoring, attached for your information and files is one photocopy each of the following items, prepared by URS Corporation, 1600 Perimeter Park Drive, Suite 100, Morrisville, North Carolina 27560 and received by MSD on December 1, 2006.

1. URS Corporation letters dated November 29, 2006, 2 pages.
2. Figure 1, Lees' Lane Landfill, Sampling Locations, 1page.
3. Table 1, TO-15 Data Summary for Ambient Air Samples at the Lees' Lane Landfill, Sampling date: September 15, 2006, 1 page.
4. Table 2, On-Site Meteorological Data, Sampling date, September 15, 2006, 1 page.
5. Table 3, TO-15 Data Summary for Gas Monitoring Well Samples at the Lees' Lane Landfill, Sampling date: September 15, 2006, 1 page.



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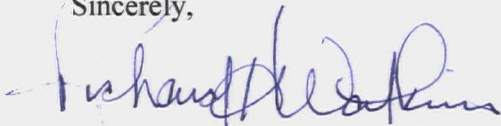


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Mr. Femi Akindele  
December 5, 2006  
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Please advise if you have any questions concerning the attached information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Richard H. Watkins, Sr.", is written over a circular blue ink stamp.

Richard H. Watkins, Sr.  
Infrastructure Liaison

RHW/rw  
Lees-07-1Qtr

Enc.

cc: Kentucky National Resource Environment Protection Cabinet  
Mr. Ken C. Logsdon, Division of Waste Management  
H. J. Schardein, Executive Director  
Michael Griffith  
Lees Lane File



URS Corporation  
1600 Perimeter Park Drive  
Morrisville, North Carolina 27560  
Telephone: 919.461.1100  
Fax: 919.461.1415

31825450.00001

November 29, 2006

Mr. Rick Watkins  
Louisville Metropolitan Sewer District  
3050 Commerce Center Place  
Louisville, KY 40211

Dear Rick:

Enclosed is the summary analytical report for the ambient air and gas monitoring well samples collected at the Lee's Lane Landfill site on September 15, 2006(Quarter 40). All six ambient samples, along with all six (G1, G2, G3, G4, G5R, G5L) well samples and a Field Blank were taken on September 15, 2006.

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary of the ambient samples with the primary analytes required for submission to EPA. Ambient air samples indicate low levels of methylene chloride and vinyl chloride at a similar level compared to the last reporting quarter. Benzene and toluene increased from 0.34 and 2.73 to 0.38 and 2.80 respectively for location A1 while the rest of the primary analytes indicated lower levels than the Spring 2006 sample. There were several very minor differences in the non-primary analytes: Ambient concentrations of acetylene were higher (5.07–10.20 ppb) than in the previous sampling event (3.21-7.71) in April 2006 while concentrations of Chloromethane varied (0.582-0.685 ppb) versus (0.543-0.821 ppb), while dichlorodifluoromethane (0.275-0.482 ppb) was lower than April 2006 (0.525-0.989 ppb).

The sampling locations were chosen based on a combination of prevailing on-site meteorology and accessible sites in the adjacent residential neighborhood per the standard sampling protocol. The meteorological conditions were moderate to warm (62-81°F) with wind speeds ranging from calm to 9.0 mph during the sampling day. The information displayed in Table 2 was obtained from the Louisville International Airport (Standiford Field) National Weather Service Station. The ambient air samples were collected in Summa canisters positioned 3-5 feet above ground level, integrated over an approximate 8.0-hour collection period.

The methane analysis was performed by GC/FID using a separate analytical system from the TO-15 analysis employed at STL in Austin. The TO-15 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total nonmethane hydrocarbons prior to field deployment. All of the samples were successfully collected and analyzed for methane and the TO-15 target analytes. Quality control parameters of precision (repeatability) and spiking of surrogate compounds meet internal URS and project-required specifications.



Mr. Rick Watkins  
November 28, 2006  
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The reliability of this data set can be characterized as good, based on the repeatability (analytical precision), surrogate spike recoveries, blank levels and the relatively few number of unresolved interfering peaks in the sample chromatograms. The September 15, 2006 field blank canister reported no positive hits other than the surrogate recoveries and a methane reading of 2.55 ppmV. The cause of the methane blank value will be investigate (within the laboratory). The reported results have not been blank corrected in attached tables per our standard project procedure.

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. The gas monitoring wells were screened with a GA-90 analyzer to test for the presence of methane prior to field sample collection. Methane was detected with the instrument at one well. Well, G1, had a reading of 4.9% methane for the left well and 6.1 % methane for the right well. Both readings were taken at the initial opening of the sampling port. Gas well G1 contained concentrations of TO-15 analytes that varied from the concentrations measured in April 2006. In particular, gas well G1 concentrations of chloroethane (39.9 ppb compared to non-detectable in April 2006), Halocarbon 114 (132 ppb compared to 13.9 ppb in April 2006), propylene (462 ppb compared to 0.111 ppb in April 2006, tetrachlorine (53.7 ppb compared to 0.332 in April 2006) and trichlorethane (24.8 ppb) were all higher compared to the previous sampling event. The G-1 well continues to be the only gas well where analyte levels are consistently above ambient detection levels.

Analytical results from gas wells G2, G3, G4, G5R, and G5L varied slightly from those reported from the previous sampling event. There were insignificant increases in the acetylene and methane concentrations from April 2006.

URS appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'Robert F. Jongleux'.

Robert F. Jongleux  
Project Manager

Enclosure

cc: Michael Kajder, URS/LOU  
Project File/Task 40

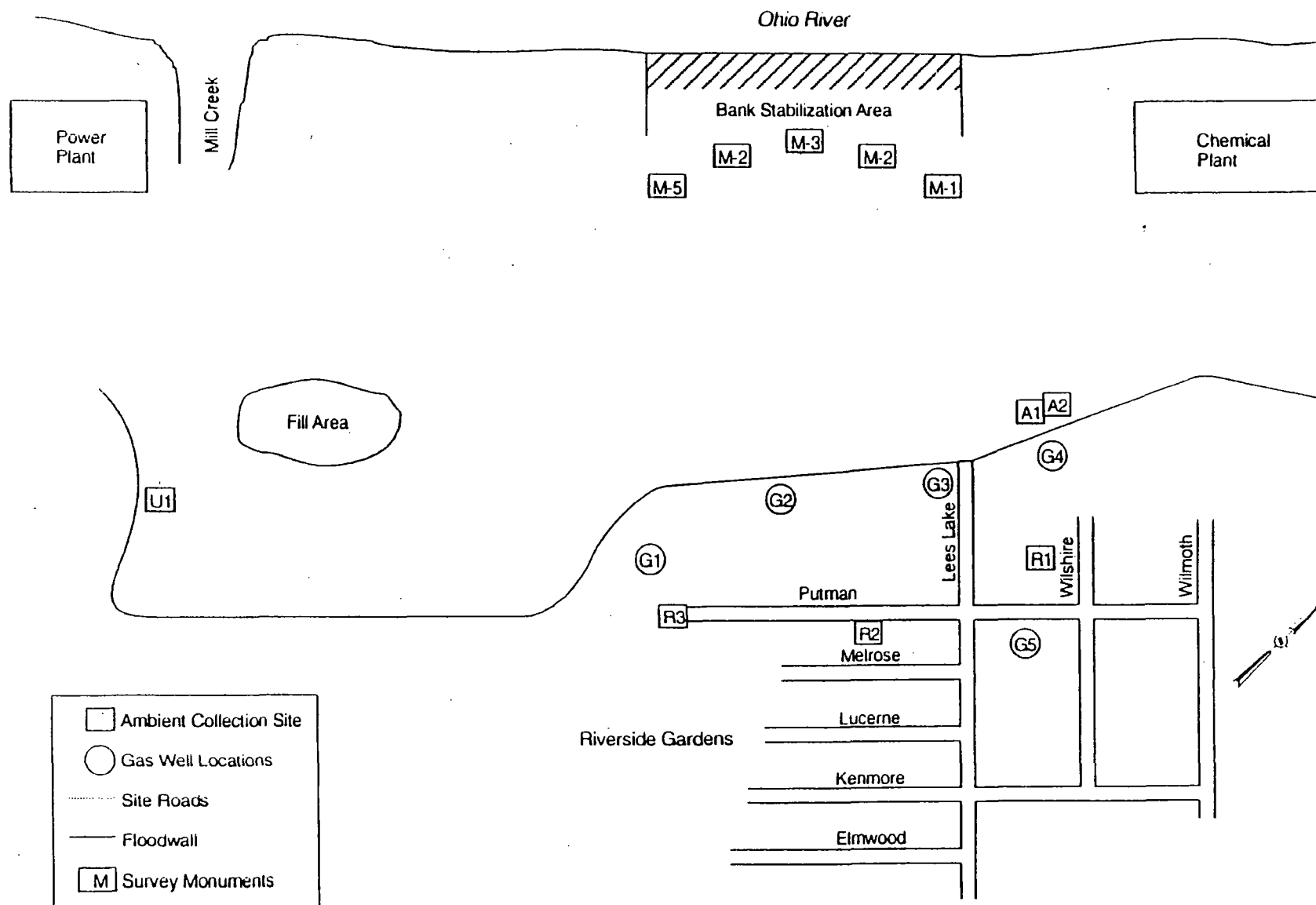


Figure 1. Lees Lane Landfill Sampling Locations

**Table 1**  
**TO-15 Data Summary for Ambient Air Samples**  
**at the Lee's Lane Landfill**  
**Sampling Date: September 15, 2006**

Sample ID	Ambient Air Samples					
	U1	A1	A2	R1	R2	R3
Canister ID	RA2031	RA2034	RA2025	HL0941	RA2035	RA2073
Dilution Factor	3.2794	2.7690	2.9976	3.5526	3.1504	3.6521
Location	Upwind	On-site	On-site(dup)	Residential	Residential	Residential
Veriflow ID	A218997	A181861	A168571	A218796	A218962	A134120
Compound (ppbV)						
Benzene	0.422	0.379	0.478	0.529	0.473	0.478
Methylene chloride	0.115	0.281	ND	ND	0.177	ND
Toluene	2.700	2.800	3.160	2.980	2.590	2.170
Vinyl chloride	ND	ND	ND	ND	ND	ND
Xylene (Total)	0.146	0.159	0.191	0.241	0.212	0.196
Methane (ppmV)	7.44	6.42	7.86	7.88	7.23	7.56

ND = Non Detect

**Table 2**  
**Local Meteorological Data**  
**Ambient Air Samples**  
**Sampling Date: September 15, 2006**

Time	Barometric Pressure (in Hg)	Temperature (F)	Dewpoint (F)	Wind Direction (from)	Wind Speed (mph)	Observation
8:00	30.12	62	59	North	6	Partly Cloudy
9:00	30.14	64	60	Variable	3	Sunny
10:00	30.14	67	61	East	3	Sunny
11:00	30.15	71	62	East	5	Mostly Sunny
12:00	30.15	75	61	Variable	3	Partly Sunny
1:00	30.15	75	60	Northeast	5	Partly Sunny
2:00	30.14	77	60	Southeast	5	Partly Sunny
3:00	30.12	79	60	Northeast	8	Partly Sunny
4:00	30.11	81	59	Northeast	9	Partly Sunny
5:00	30.1	78	58	North	5	Partly Sunny
6:00	30.09	79	59	East	6	Partly Sunny

Source: National Weather Service, Louisville, Ky.

**Table 3**  
**TO-15 Data Summary for Gas Monitoring Well Samples**  
**at the Lee's Lane Landfill**  
**Sampling Date: September 15, 2006**

	Well Samples						
Sample ID	G1	G2	G3	G4	G5-L	G5-R	BLANK #1
Canister ID	RA2029	RA2036	RA2028	RA2104	RA2067	RA2071	RA0898
Dilution Factor	2.6833	2.6762	2.6833	2.6833	2.6833	2.6619	2.6833
Orifice	RA2029	RA2036	RA2028	RA2104	RA2067	RA2071	N/A
Sampling Date	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006
Compound (ppbV)							
Benzene	32.0	ND	0.337	0.259	0.274	0.449	ND
Methylene chloride	0.127	ND	0.182	ND	ND	ND	ND
Toluene	ND	0.038	0.807	0.122	0.496	3.520	ND
Vinyl chloride	15.7	ND	0.672	5.65	ND	ND	ND
Xylene (Total)	ND	ND	0.107	ND	ND	0.309	ND
Methane (ppmV)	64,400 *	4.17	5.55	3.28	6.64	6.76	2.55

ND = Non-Detect

\* Dilution Factor for G1 Methane = 33.4346



31825450.00001

November 29, 2006

Mr. Rick Watkins  
Louisville Metropolitan Sewer District  
3050 Commerce Center Place  
Louisville, KY 40211

Dear Rick:

Enclosed is the supplemental report for the ambient and gas monitoring well samples collected at the Lee's Lane Landfill site on September 15, 2006. Table 4 has been prepared electronically for your convenience to complete the project file per your request. Table 4A/B summarizes only those TO-15 compounds which had positive hits (above the quantitation limit) for both the ambient air and gas well samples during the second quarter 2006 (40<sup>th</sup>) sampling campaign. An electronic copy (floppy disk) of the Excel table is included for your records.

URS appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert F. Jongleux".

Robert F. Jongleux  
Project Manager

RFJ/Task40

Enclosures

c: Michael Kajder URS/LOU  
Project File/Task 40